ICANWK –New 3-level 6 Design and configure an Enterprise Desktop Virtualisation

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| Unit descriptor | | This unit describes the performance outcomes, skills and knowledge required to development and implement virtualisation technologies with the goal of providing more efficient and reliable information and communications technology (ICT) environment.  No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement but users should confirm requirements with the relevant federal, state or territory authority. | |
| Employability skills | | This unit contains employability skills. | |
| Application of the unit | | This unit applies to senior networking staff responsible for increasing the sustainability of an organisation by using enterprise Desktop virtualisation technologies. | |
| Unit sector | | General ICT | |
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| ELEMENT | | PERFORMANCE CRITERIA | |
| Elements describe the essential outcomes of a unit of competency. | | Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide. | |
| 1. **Prepare design specifications and plan for** implementation of Enterprise Desktop Environment | | * 1. Research available enterprise desktopVirtualisation software vendors   2. Evaluate enterprise desktopVirtualisation environment   3. Analyse and compare features and components of enterprise desktop virtualisation environment   4. Identify design objective, requirements, and limitations   5. Document ***design infrastructure*** according to ***organisational requirements***   6. plan deployments using recommended design   7. Plan the implementation, where appropriate, for the benefit of the organisation | |
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| 1. Implement and configure enterprise desktop virtualisation infrastructure and services to assist in solving specific organisational problems | | * 1. Assess enterprise desktop virtualisation software and analyse their relevance to organisational requirements   2. Install and Configure enterprise desktop virtualisation environment   3. Implement ***specific features and functions*** to provide a suitable solution to an identified problem   4. Implement and manage the testing process   5. Demonstrate depth of knowledge of enabling enterprise desktop virtualisation to an accepted industry standard | |
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| 1. Implementing application virtualisation | | * 1. Plan the implementation and deployment of ***application virtualisation software***   2. Configure and test application virtualisation ***system components***   3. Maintain, update and tune system components | |
| RANGE STATEMENT | | | |
| The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included. | | | |
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| |  |  | | --- | --- | | Virtualisation software vendors ***may include:***  ***virtualisation environment may include:***  ***design infrastructure may include:*** | * Citrix * KVM * Microsoft * Oracle * Parallels * VMware. * VMware View Enterprise — includes VMware vSphere Desktop, VMware vCenter Desktop, and VMware View Manager. * VMware View Premier — includes VMware vSphere Desktop, VMware vCenter Desktop, View Persona Management, VMware vShield Endpoint, VMware View Manager, View Client with Local Mode, VMware View Composer and VMware ThinApp * VMware View suite: VMware View Manager, VMware View Composer, and VMware ThinApp * Microsoft MED-V server, MED-V client, and MED-V management, * Desktop Delivery Controller * Virtual Desktop Provisioning powered by Citrix Provisioning Services. * Virtual Desktop Agent. * Citrix online plug-in * Citrix XenServer * red hat enterprise Linux desktop * Pool Design * Pod and Block Design * Storage Design * End-User Session management * Client Device access * Networking design * Management infrastructure * Authentication solution * Desktop Operating system choice * Memory allocations * Storage allocations * CPU allocations * Applications-desktop pools * POD configurations * Security design and implementations | | | |
| ***application virtualisation software may include***  ***specific features and functions may include***  Organisational requirements may include: | App Zero  Ceedo  Evalaze  Citrix XenApp  Novell ZENworks Application Virtualization  Microsoft Application Virtualization  Software Virtualization Solution  Spoon (former Xenocode)  VMware ThinApp   * Creating images * Updating software * Implementing workspace polices * Reporting and troubleshooting * Administrating users * manage fault tolerance * manage security features * managing profiles * manage storage * manage resource pools * mange PODs * how and what the organisation wants regarding the work environment * preventative maintenance and diagnostic policy * problem-solving processes * roles and technical responsibilities in network management   vendor and product service level support agreements | |
| |  |  | | --- | --- | | ***System components may include:*** | * Application Virtualization Sequencer - Microsoft * Application deployment- Microsoft * Application virtualisation management server- Microsoft * Virtualisation management console- Microsoft * Virtualisation management web server- Microsoft * Virtualisation data store- Microsoft * Virtualisation streaming server- Microsoft * Virtualisation client-Microsoft * XenApp-server -Citrix * Login scrip-VMware * Citrix profiler -Citrix * Setup Capture-VMware * XenApp Client for hosted APPS- Citrix * XenAPP Client for Streaming- Citrix * Content Share- Microsoft * Citricx licinceng server - Citrix * SQL database instant * Citrix web interface-Citrix * File share-VMware   Content Share-Microsoft | | | |
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| EVIDENCE GUIDE | | | |
| The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package. | | | |
| Critical aspects for assessment and evidence required to demonstrate competency in this unit | | Evidence of the ability to:   * Design, configure and manage the implementation of virtualised enterprise desktop environment * Analyse and critically evaluate features and functions of virtualised enterprise desktop environment * Plan, configure and maintain Application virtualisation software | |
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| Context of and specific resources for assessment | | Assessment must ensure access to:   * site where industry-specific technologies may be used * industry-specific technologies currently used in industry   documents detailing OHS standards, environmental guidelines and organisational requirements.  Where applicable, physical resources should include equipment modified for people with special needs. | |
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| Method of assessment | | A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:   * verbal or written questioning to assess candidate’s knowledge of features and functions of industry-specific technologies * direct observation of candidate managing the implementation of industry-specific technologies * simulation of industry-specific uses of the industry-specific technologies. | |
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| Guidance information for assessment | | Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, where appropriate.  Assessment processes and techniques must be culturally appropriate, and suitable to the communication skill level, language, literacy and numeracy capacity of the candidate and the work being performed.  Indigenous people and other people from a non-English speaking background may need additional support.  In cases where practical assessment is used it should be combined with targeted questioning to assess required knowledge. | |

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| This section describes the skills and knowledge required for this unit. |
| **Required skills** |
| communication skills to liaise with internal and external personnel on technical, operational and business-related matters   * literacy skills to: * interpret technical documentation   write reports as required   * numeracy skills to: * evaluate performance and interoperability of network * interpret results   take test measurements   * planning and organisational skills to: * coordinate the process in liaison with others   plan, prioritise and monitor own work   * problem-solving and contingency-management skills to: * adapt configuration procedures to requirements of network * reconfigure depending on differing operational contingencies, risk situations and environments * troubleshoot virtual software component   apply solutions in networks, including virtualised desktop environments   * deploy rapid solutions to problems involving virtualised desktop environment * technical skills to: * apply current best practice to implementing sustainability options through virtualisation methodologies and technologies * assess and implement virtualisation requirements * select assess and configure virtualisation software |
| Required knowledge | | |
| * overview knowledge of: * current government and industry policies and guidelines related to developing efficient and reliable ICT environments   current technologies and processes designed to produce a efficient and reliable ICT environment   * structure, function and business organisation of client * available tools and software applications required to manage virtual desktop environment * configuration of software applications required to manage virtual desktop environment * configuration required to integrate virtual machines into existing network design * install configure and manage server virtualisation | | |